

**IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF TEXAS  
MARSHALL DIVISION**

PERSONALIZED MEDIA  
COMMUNICATIONS, LLC,

Plaintiff,

v.

SAMSUNG ELECTRONICS AMERICA, INC.  
and SAMSUNG ELECTRONICS CO., LTD.,

Defendants.

Civil Action No. 2:15-cv-1754-JRG-RSP

JURY TRIAL DEMANDED

**RESPONSE IN OPPOSITION TO THE SAMSUNG DEFENDANTS' RULE 12(b)(6)  
MOTION TO DISMISS FOR FAILURE TO STATE A CLAIM (Dkt. No. 23)**

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## I. INTRODUCTION

The patents PMC asserts in this case—which are different than those addressed in the *Amazon* case that Defendants Samsung Electronics America, Inc. and Samsung Electronics Co., Ltd. (collectively, “Samsung”) cite extensively—cover groundbreaking innovations from the 1980s addressed to multimedia signal processing techniques for the control of video displays and the coordination of video content. The patents in this case are asserted against video processing and control functionalities in Samsung’s digital televisions and smartphones—again, entirely different than the retail network and remote computing services and products at issue in *Amazon*.

In the Motion to Dismiss, Samsung tries to shoehorn *this* set of PMC patents into the *Amazon* result (and the results of some other § 101 cases) by grossly oversimplifying them. Samsung does so by ignoring the concrete, articulated limitations of the claimed inventions and, instead, stripping down the claims until an element that can be characterized as an abstract idea is revealed. This strategy lends credence to the Supreme Court’s concern that expansive readings of the scope of ineligible subject matter might “swallow all of patent law,” because “[a]t some level, all inventions embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas.” *Alice Corp. Pty. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2354 (2014) (quoting *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1293 (2012)).

In addition, each claim satisfies § 101 because it covers an inventive combination of steps that is transformative in nature. Samsung ignores that PMC’s patents describe inventive concepts that were far from conventional in the 1980s, and it presents no evidence calling into question that the claimed innovations were technical solutions to problems existing in the art at the relevant time. *See Research Corp. Techs. v. Microsoft*, 627 F.3d 859, 868-89 (Fed. Cir. 2010) (“[I]nventions with specific applications or improvements to technologies in the

marketplace are not likely to be so abstract that they override the statutory language and framework of the Patent Act.”). In *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245 (Fed. Cir. 2014)—a case Samsung does not address—the Federal Circuit held that a claim is patent-eligible under § 101 when the claimed technical solution is narrowly tailored to overcome a problem specifically arising in a technological realm. That is precisely the case here.

## II. FACTUAL BACKGROUND

The PMC patents asserted in this case relate to the field of multi-media signal processing—a field essentially unheard of at the time of the patents’ priority dates of 1981 (the ’217 and 6’649 Patents) or 1987 (the ’775, 2’649, ’650, and ’885 Patents). At that time, mass medium programming to receivers (such as radios and televisions) was typically transmitted in only one direction. All viewers received essentially the same, unalterable content, and they had no way of communicating with the broadcaster to customize or personalize their content. *See* Declaration of Alfred C. Weaver, Ph.D. in Support of PMC’s Response in Opposition to the Samsung Defendants’ Motion to Dismiss (“Weaver Dec.”), ¶¶ 26-30. Similarly, conventional transmitters (which communicate signals to be processed at a receiver) could not control operations at receivers. *Id.*, ¶ 30.

Further, the idea of streaming digital media content was also novel in the 1980s. To the extent digital content was even available in the 1980s, the conventional practice was to record or store a particular media file for later viewing. *Id.*, ¶¶ 31-35. Likewise, it was not typical at the time to use network communications to control the processing of multimedia content received in messages. Receivers could not externally communicate information related to the usage of multimedia signals, such as by recording how or where signals are passed during the consumption of multimedia content. *Id.*, ¶ 35.

The PMC inventions, however, brought all these unconventional concepts to the table. The asserted patents recognized that broadcast programming could be used to remotely control how information is processed at the receiver. *Id.*, ¶ 36. They claim systems and methods for distributing digital information over a network from a transmitter station to a receiver station. The transmitted information can include commands, data, signals, computer programs, and/or other programming in various formats. *Id.*, ¶ 38. The asserted patents recognized the significant improvements that could be made by enabling transmitters to control receivers such as by sending control instructions in the same information stream as programming content (the 6’649 and ’885 Patents); and by enabling receivers to use those instructions to identify what the content is and how it is to be processed (’217, ’775, 2’649, and ’650 Patents). The inventions employ distributed computing and control and enabled new modes of delivering content. *Id.*, ¶¶ 39-42.

### **III. LEGAL STANDARDS**

#### **A. Ruling on a § 101 Motion At the Pleadings Stage**

When patent claims on their face are plainly directed to an abstract idea, it may be proper to assess patent validity under § 101 at the pleading stage, without the benefit of claim construction or discovery. *See Content Extraction & Transmission LLC v. Wells Fargo Bank, N.A.*, 776 F.3d 1343, 1349 (Fed. Cir. 2014). However, “it will ordinarily be desirable—and often necessary—to resolve claim construction disputes prior to a § 101 analysis, for the determination of patent eligibility requires a full understanding of the basic character of the claimed subject matter.” *Bancorp Servs. L.L.C. v. Sun Life Assurance, Co. Can. (U.S.)*, 687 F.3d 1266, 1273-74 (Fed. Cir. 2012). Similarly, if the legal analysis required for determining patent validity under § 101 contains “underlying factual issues,” a ruling would be “premature” at the pleadings stage. *Realtime Data, LLC v. Actian Corp.*, No. 6:15-CV-463-RWS-JDL, 2015 U.S. Dist. LEXIS 175161, \*14-15 (E.D. Tex. Nov. 30, 2015) (citing *Accenture Global Servs., GmbH v. Guidewire*

*Software, Inc.*, 728 F.3d 1336, 1340-41 (Fed. Cir. 2013)).

## **B. Patent-Eligibility Under 35 U.S.C. § 101**

Section 101 of the Patent Act makes patent protection available for “any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof.” 35 U.S.C. § 101. The Supreme Court has recognized three exceptions to the wide scope of Section 101 subject matter eligibility: “law of nature, physical phenomena, and abstract ideas.” *Diamond v. Chakrabarty*, 447 U.S. 303, 309 (1980) (citations omitted). The “concern that drives this exclusionary principle is one of pre-emption,” that is, “that patent law not inhibit further discovery by improperly tying up the future use of these building blocks of human ingenuity.” *Alice*, 134 S. Ct. at 2354 (citations omitted).

Consequently, the Supreme Court has devised a two-step “framework for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts.” *Alice*, 134 S. Ct. at 2355. In Step One, a court must “determine whether the claims at issue are directed to one of those patent-ineligible concepts.” *Id.* If not, the claims pass muster under § 101 and the inquiry ends. *Mortgage Grader, Inc. v. First Choice Loan Servs. Inc.*, 811 F.3d 1314, 1324 (Fed. Cir. 2016). If the answer to the first step is “yes,” a court proceeds to Step Two, which requires it to “consider the elements of each claim both individually and as an ordered combination to determine whether the additional elements transform the nature of the claim into a patent-eligible application.” *Id.* (quotation marks omitted); *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1255 (Fed. Cir. 2014) (“This second step is the search for an ‘inventive concept,’ or some element or combination of elements sufficient to ensure that the claim in practice amounts to ‘significantly more’ than a patent on an ineligible concept.”).

#### IV. ARGUMENT

##### A. Samsung's Motion Should Be Denied as Premature Because Claim Construction is Necessary and Underlying Factual Issues Exist

Samsung's motion should be denied as premature because "[c]laim construction ... is an important first step in a § 101 analysis." *In re Bilski*, 545 F.3d 943, 951 (Fed. Cir. 2008), *aff'd*, *Bilski v. Kappos*, 561 U.S. 593 (2010). And though claim construction "is not an inviolable prerequisite to a validity determination under § 101[.]" "it will ordinarily be desirable—and often necessary—to resolve claim construction disputes prior to a § 101 analysis, for the determination of patent eligibility requires a full understanding of the basic character of the claimed subject matter." *Bancorp*, 687 F.3d at 1273-74. Because claim construction is relevant both to the Court's determination of whether the claims are directed to abstract ideas under Step One of the *Alice* test and whether they recite inventive concepts under Step Two, this Court has routinely denied motions such as this one as premature at the pleadings stage. *See, e.g., DietGoal Innov. v. Tyson Foods*, No. 2:12-cv-338-JRG-RSP, 2013 U.S. Dist. LEXIS 189004, at \*2-3 (E.D. Tex. Mar. 25, 2013); *Advanced Mktg. Sys. LLC v. CVS Pharm.*, No. 6:15-cv-134 (E.D. Tex. Nov. 18, 2015), ECF No. 77.

Factual issues underlying the § 101 analysis also preclude adjudication of this motion without the benefit of discovery. Analysis of patentable subject matter under § 101, "while ultimately a legal determination, is rife with underlying factual issues." *Ultramercial, Inc. v. Hulu, LLC*, 722 F.3d 1335, 1339 (Fed. Cir. 2013), *vacated on other grounds*, 134 S. Ct. 2870 (2014). For example, Step Two of the *Alice* test requires consideration of matters that are classically factual: what was the state of the art in 1981 or 1987, the effective filing dates of the asserted patents; what was well-understood, routine, and conventional activity previously engaged in by persons of ordinary skill in the art at the relevant time; how much of a field may

be “tied up” by the scope of the relevant patent claim. *See, e.g., id.* at 1339. Such factual issues are necessary predicates to Samsung’s argument for § 101 ineligibility, but Samsung has either provided conclusory attorney argument to support its position or simply ignored them altogether. Absent any such evidence by Samsung, the Court has two options. It must accept all the well-pleaded facts by PMC as true and draw all reasonable inferences in its favor, necessitating denial of the Motion. *Clear With Computers, LLC v. Dick’s Sporting Goods, Inc.*, 21 F. Supp. 3d 758, 762 (E.D. Tex. 2014). Or it must deny Samsung’s motion upon finding that it cannot fairly apply the *Alice* test without further evidence, *e.g.*, that the claims require only processes or structures deemed to be “conventional” as of the dates of invention, that the claims require only the use of “generic computer functions,” or that the claims, on the whole, do not disclose technical innovations as of 1981 or 1987. *See Rockstar Consortium US LP, Inc. v. Samsung Elecs. Co., Ltd.*, 2014 U.S. Dist. LEXIS 67097, at \*13 (E.D. Tex. May 15, 2014) (“If there are factual disputes about the patent’s claims, . . . the question of patentable subject matter should be reserved until claim construction.”). To the extent that the Court chooses to address Samsung’s challenge at this stage of the case, before a page of discovery has been exchanged or claim has been construed, the Court is bound to interpret any disputed facts or construe any disputed claims in the manner most favorable to PMC. *See Content Extraction*, 776 F.3d at 1349.

**B. Samsung’s Discussion of Cherry-Picked Portions of Cherry-Picked Claims Warrants Denial of Its Motion**

Samsung’s motion should also be denied because it has failed to establish that any of the 100 asserted claims fail the *Alice* test. Instead, Samsung has cherry-picked a single independent claim from each of the 6 asserted patents and accorded it cursory treatment. Samsung asserts that these 6 claims are “representative” of the 94 others, but provides no explanation or analysis as to why the 6 are equivalent in scope with the other 94. *Id.* at 1348. Samsung ignores the

numerous meaningful distinctions and material differences that exist among the claims. *See* Weaver Dec., ¶¶ 45-50, 58-59, 68-71, 74, 80-93, 106-08, 117, 120.

Because “each claim in a patent is presumptively different in scope,” *RF Del., Inc. v. Pac. Keystone Techs., Inc.*, 326 F.3d 1255, 1263 (Fed. Cir. 2003), it is Samsung (and not PMC) who must explain why Samsung’s chosen representative claim is truly representative of all of the asserted claims. As the movant, Samsung failed to satisfy that burden. Samsung’s sweeping motion thus “amounts to an impermissible bypass of the required claim-by-claim analysis. . . . Moreover, [Samsung’s] position runs counter to the codified presumption that each claim of a patent (whether independent, dependent, or multiple dependent form) shall be presumed valid independently of the validity of other claims.” *Exergen Corp. v. Kaz USA, Inc.*, No. 13-10628-RGS, 2015 WL 8082402, \*5 (D. Mass. Dec. 7, 2015). In determining patent eligibility under § 101, each of the “claims must be considered as a whole”—not just some of the asserted claims that Samsung chooses to address, and not just portions of those claims. *See Diamond v. Diehr*, 450 U.S. 175, 188 (1981). Whatever the merits of Samsung’s cursory treatment of the 6 challenged claims, its Motion provides no basis to invalidate the rest.

**C. Samsung Fails to Demonstrate That Any Asserted Claim is Invalid Under § 101**

The threshold inquiry of the § 101 analysis requires the Court to determine whether each patented claim is directed to an “abstract idea,” *i.e.*, an “idea of itself,” a preexisting fundamental truth, a mathematical formula, or a fundamental economic principle, which, if patent-eligible, would pre-empt the use of basic tools of scientific and technological innovation. *See Alice*, 134 S. Ct. at 2354. What Samsung has done in seeking to invalidate all 100 asserted claims is to set up a § 101 strawman by oversimplifying the actual language of the claims so that what is left appears to be an “abstract idea.” In other words, Samsung has stripped the claims down so that it

could manufacture an abstraction. In that vein, Thomas Edison could not have patented his lightbulb if his invention were distilled down to the abstract concept of “lighting a room”—something done by cavemen with torches millennia ago. Samsung’s strategy is precisely the misapplication of the *Alice* test the Supreme Court warned about. *Id.* at 2354 (if successful, it will “swallow all of patent law,” because “[a]t some level, all inventions embody . . . or apply laws of nature, natural phenomena, or abstract ideas”).

For the second step of the *Alice* test, Samsung employs a slightly different tactic. It cherry-picks terms and phrases from claim limitations (*e.g.*, receiving, programming, processing), calls that isolated term or phrase “routine” or “conventional,” and then concludes that the full claim, as the sum of the terms picked from the limitations, is insignificant or non-inventive. This approach as well is contrary to precedent because it does not view the additional claim limitations “as an ordered combination.” *See id.*

### **1. The Asserted Claims of the ’217 Patent are Patent-Eligible**

***Alice* Step 1.** Samsung contends that the 12 asserted claims of the ’217 Patent “are directed to the abstract idea of creating a coordinated presentation of information from different media[.]” Mot. at 13. Contrary to Samsung’s abstraction, the ’217 patent addresses a specific technological problem rooted in signal transmission and processing: correctly identifying the content of different media received in multiple signals to produce a coordinated presentation using two of the received media. ’217 Patent, 10:51-11:6; 21:53-22:20; Weaver Dec., ¶ 44.

Samsung grossly oversimplifies claim 38, which it asserts, without justification, is representative of the other asserted claims. Samsung has stripped claim 38 down to only five generalized components so that the claim can be characterized as the “abstract idea” of an apparatus capable of “creating a coordinated presentation by combining information from two

media.” Mot. at 13. This cursory analysis leaves out the following limitations of claim 38:

SAMSUNG’S OVERSIMPLIFICATION OF CLAIM 38	MISSING LIMITATIONS FROM CLAIM 38 (NOT BOLDED)
Claim 38 requires that the multimedia presentation apparatus	<b>A multimedia presentation apparatus comprising</b>
(i) receive signals from a first medium	(i) a receiver that <b>receives</b> a subset of a plurality of <b>signals from</b> an external source, each signal of said subset of said plurality of signals including an identifier, wherein said plurality of signals includes <b>a first medium</b> and a second medium of a multimedia presentation, and
(ii) identify content from the first medium using an identifier in the received signals	(ii) a microcomputer that <b>identifies content of said first medium by</b> processing <b>each identifier</b> of said subset <b>of said plurality of signals</b> and comparing each processed identifier to a predetermined identifier, wherein said predetermined identifier is determined at a time prior to receiving said plurality of signals and identifies content of said first medium
(iii) process the received signals if the received identifier matches a predetermined identifier	(iii) <b>that processes only a signal</b> of said subset of said plurality of signals <b>that includes an identifier that matches said predetermined identifier</b> , that receives said second medium in a digital data channel transmitted from a source external to said multimedia presentation apparatus, wherein said second medium is not included in said subset of said plurality of signals
(iv) generate information based on the second medium	(iv) that identifies content of said second medium, that <b>generates information based on said second medium</b> based on said identifying content of said second medium
	(v) that executes processor instructions that coordinate presentation of said first medium and said information based on said second medium such that content of said first medium has a predetermined relationship to said information based on said second medium and said content of said first medium explains a significance of said information based on said second medium, and
(v) display in a predetermined manner content from the first medium and information from the second medium	(vi) an output device that outputs and <b>displays said coordinated presentation of said first medium and information from said second medium</b>

As the chart makes clear, the “abstract idea” manufactured by Samsung (coordinating a

presentation from different media) is but one—the last—limitation of claim 38 and does not represent the basic character of the claimed subject matter. *IBM v. Priceline Grp. Inc.*, No. 15-137-LPS-CJB, 2016 U.S. Dist. LEXIS 18660, \*20-21, \*50-51 (D. Del. Feb. 16, 2016) (denying motion to dismiss because, *inter alia*, “Defendants’ articulation does not capture the true character of the [claims]” and is “an overly broad assertion as to what is . . . at the heart of the patent’s claims”). *Cf. Bancorp.*, 687 F.3d at 1273-74 (“[T]he determination of patent eligibility requires a full understanding of the basic character of the claimed subject matter.”); *Internet Patents Corp. v. Active Networks, Inc.*, 790 F.3d 1343, 1348 (Fed. Cir. 2015) (“Applying the guidance of *Bilski*, *Mayo*, and *Alice* . . . we start by ascertaining the basic character of the subject matter[.]”).

As the chart illustrates, claim 38 discloses a specific apparatus that uses predetermined identifiers to identify and select content from two mediums contained within signals received from an external source. The apparatus then executes instructions to produce a coordinated presentation of the two mediums in such a way that one medium meaningfully supplements the other medium. In particular, the claim requires the receiver station to determine the content of a medium by “processing an identifier of each signal” of the subset of signals received, and “comparing the processed identifier to a predetermined identifier.” The claim further specifies that the predetermined identifier is “determined at a time prior to” the receiver station receiving the subset of signals and identifies the content of the first medium. Finally, the outputted coordinated presentation must comprise content from two media such that the content of the first medium “explains a significance of” the second medium information.<sup>1</sup> Considered together, all the limitations of claim 38 disclose a physical apparatus that executes much more concrete and

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<sup>1</sup> To properly understand the deficiencies in Samsung’s § 101 challenge and the technological solutions disclosed in the ’217 Patent, the Court should construe at least the terms identified in the parties’ joint letter submission pursuant to the Court’s Standing Order Regarding Motions Under 35 U.S.C. § 101. Dkt. No. 31-1 (“Joint Letter”).

specific tasks than the final task of outputting “a coordinated presentation of information from different media.” Weaver Dec., ¶¶ 45-48, 51-54.

Samsung’s attempt at abstraction should be dismissed in view of this Court’s decision in *Gonzalez v. InfoStream Grp., Inc.*, No. 2:14-cv-906-JRG-RSP (E.D. Tex. Feb. 6, 2016), ECF No. 160, in which the Court denied a motion for summary judgment of invalidity involving two patents relating to the creation of digital labels for use with websites to facilitate searches. This Court found that of the steps for “gathering” a type of data and “producing” a “label” based on the gathered data, “[g]athering’ data may describe an abstract idea, but ‘producing’ a ‘label’ based on that data does not describe an abstract idea” because “[p]rocessing gathered data to ‘produce’ ‘something symbolic’ . . . is a specific and concrete implementation of data storage.” *Id.* at 7-8. By analogy, with respect to claim 38, even if the steps of “identif[ying] content” of the first and second media may describe an abstract idea, the steps of “generat[ing] information” to “coordinate presentation” of the first and second media such that the “content of said first medium explains a significance of said information based on said second medium” and then “output[ting] said coordinated presentation” do not because generating a coordinated presentation based on identified content (*i.e.*, “processing gathered data to produce something symbolic”) is a specific and concrete implementation of multi-media presentation coordination and generation.<sup>2</sup>

Samsung references *Digitech Image Techs., LLC v. Elecs. for Imaging, Inc.*, 758 F.3d 1344 (Fed. Cir. 2014), to support its ineligibility argument directed at claim 38. However, the claims at issue in *Digitech* are fundamentally different from apparatus claim 38: the *method*

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<sup>2</sup> Indeed, even Samsung does not truly believe that “creating a coordinated presentation of information from different media” is an abstract concept, because it itself holds a patent on a similar concept. *See* Ex. A (U.S. Patent No. 6,104,436 to Samsung Electronics Co., Ltd., entitled “Apparatus and Method for Displaying Subchannel Information in a Digital TV Receiver”) (issued Aug. 15, 2000) at 1:66-2:3 (“[I]t is an object of the present invention to provide a subchannel information displaying method capable of furnishing a user with information about a program change of sub channels during the watching of a digital television.”).

claims in *Digitech* were found to be directed to “an abstract idea because [they] describe[d] a process of organizing information through mathematical correlations and [are] *not tied to a specific structure or machine.*” *Id.* at 1350-51 (emphasis added). As *Digitech* held, the abstract claims at issue there covered a “process of gathering and combining data that *does not require input from a physical device*” and “nothing in the claim language *expressly ties the method to an image processor.*” *Id.* at 1351 (emphasis added). Here, by contrast, claim 38 does not claim the performance of “mathematical correlations” and expressly recites specific physical devices such as “a receiver,” “a microcomputer,” and “an output device,” each with additional concrete characteristics. These physical structures counsel away from the conclusion that the asserted claims are inherently abstract. *Advanced Mktg.*, No. 6:15-cv-134, ECF No. 77, at 9 (noting that “a review of the asserted claims does not clearly show that they recite an abstraction—an idea, having no particularly concrete or tangible form. The . . . claims, for example, include physical structures . . . these structures counsel[] away from summarily concluding that the claims are directed to an abstract idea.”) (quotation marks and citations omitted).<sup>3</sup>

**Alice Step 2.** Despite acknowledging its burden to analyze all the limitations of a claim both “individually and as an ordered combination” under *Alice*, Samsung fails to do so. Such a deficiency permeates each and every *Alice* Step Two argument Samsung makes in this motion. *See* Mot. at 15-16, 18-19, 21-22, 24-25, 27-28, 30-31.

Samsung’s improper, piecemeal approach to *Alice* Step Two for this patent manifests as

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<sup>3</sup> As to the other asserted independent claims (1, 11, and 30), Samsung again extracts a portion of the last limitation of each claim—and nothing else—to serve as the claim’s “basic character,” ignoring the other nuanced limitations in these claims which are tied to physical structures. Mot. at 14. And with respect to the other asserted dependent claims (2, 3, 4, 5, and 7), Samsung does not explain why their narrowed scopes fail to add concreteness to the alleged abstract idea. Notably, Samsung does not reference or distinguish at all asserted claims 9, 31, and 32 in its *Alice* Step One analysis. *See id.* at 13-14.

follows: First, Samsung lifts single components from the claims (such as “plurality of signals,” “identifier,” “medium,” and “content”) and argues—without support—that they are merely “intangible information.” *Id.* at 15. But the mere fact one cannot hold an “identifier” in one’s hand does not contribute to the § 101 analysis. *DDR Holdings*, 773 F.3d at 1257-58 (the claimed “hyperlink,” while intangible, does not detract from the invention’s eligibility under § 101). Samsung does the same thing with the recited structural limitations: it improperly extracts them from claims (such as “receiver,” “microcomputer,” and “output device”) and calls them “conventional,” “well known in the art,” and “functional and generic,” without any evidence as to whether their combination would have been conventional or routine at the relevant time. *Id.*; see *Weaver Dec.*, ¶¶ 52-55. After all, essentially every invention employs structures that, at a high level, are known in the art. It is the combination and utilization of these structures in a new and innovative way that leads to patent eligibility. *Diehr*, 450 U.S. 175 at 188-89.

Second, Samsung isolates claim limitations (such as “receiv[ing] a subset of plurality of signals,” “identif[y]ing content of said first[second] medium,” and “output[ing] and display[ing] said coordinated presentation”) and calls them “generic” and “routine” in hindsight and again without a shred of evidence (and especially no evidence circa the 1980s). *Mot.* at 15. Again, however, one must consider the contribution of these elements to the claim as a whole. PMC likely could not obtain a patent that merely claimed “receiving signals,” but the signal reception here is in connection with an ordered combination of structures that is sufficiently inventive so as to transform any alleged underlying abstract idea. See *Weaver Dec.*, ¶¶ 51-55.

Third, Samsung misuses the specification in arguing that the patent itself considered the “coordination and display of two media (‘graphic information’ and ‘video information’)” to be “well known in the art.” *Mot.* at 15-16. In actuality, the phrase “well known in the art” was

meant to be applied to “graphic overlay techniques” specifically, rather than any and all coordination and display of different media. ’217 Patent, 10:65-11:4.

Failing to consider the limitations as an ordered combination, Samsung’s piecemeal analysis leads it to say that the claims are nothing more than the sum of their parts, each of which was “routine,” “conventional,” “intangible,” or “generic.” That is not the proper Step Two inquiry. When done properly—i.e., when the elements of a claim are considered as an ordered combination in light of the alleged abstract idea of “creating a coordinated presentation of information from different media”—it becomes clear that the patented invention amounts to something significantly more than the alleged abstract idea itself. For example, claim 38 specifies: (a) the source of the media (*e.g.*, it must be external); (b) how the media is to be received (*e.g.*, in a plurality of signals; the first and second media are to be received separately; and the second medium is to be received in a digital channel); (c) how the media are identified and selected (*e.g.*, the subset of signals must include an identifier that is compared to a predetermined identifier to identify the first medium; if there is a match that signal is selected for processing; (d) how the media are to be processed (*e.g.*, the content of the second medium is to be processed to generate information based on the second medium); (e) how the media is related (*e.g.*, the first medium must have a predetermined relationship to the second medium); and (f) what the relationship between the media must be (*e.g.*, the first medium must explain a significance of the information based on the second medium). The asserted claims are thus not directed to the abstract idea of creating a coordinated presentation of information from different media; instead, they are directed to a specific set of steps to be applied for the reception, identification, selection, processing, and relation of multiple media to be combined and displayed as a coordinated presentation. *Weaver Dec.*, ¶¶ 51-55.

Those steps, taken in combination, transform the concept of creating a coordinated presentation of information from different media into very specific, concrete methods by placing requirements on what and how the media is to received, identified, selected, processed, and related. As a result, the asserted claims do not, for example, apply to or preempt every case of combining existing information from multiple sources. *Id.*, ¶¶ 54-55. Nor do they preempt every process or apparatus used to create a coordinated presentation from different media. *Id.*

## **2. The Asserted Claims of the 6’649 Patent are Patent-Eligible**

**Alice Step 1.** Samsung’s assertion that the asserted claims of the 6’649 Patent are directed to the abstract idea of “converting information from one format to another” is again an oversimplification of the claim language. Mot. at 16. Neither claim 9 nor 10 simply covers the concept of data conversion, *i.e.*, the signals being processed are not being “converted” from “one format” to “another format.” Rather, the asserted claims are directed to a process of matching a “signal processing scheme” to the format of a received variable digital signal to output television programming. Weaver Dec., ¶ 58. In addition, Samsung does not explain how claim 9 is representative of claim 10. *Compare* Mot. at 17 *with* Weaver Dec., ¶¶ 58-59.

The variable signal processing methods disclosed in the asserted claims of the 6’649 Patent provide a specific solution to a technical problem: signal processing prior to 1981 was limited to non-variable formats. *See, e.g.*, 6’649 Patent, 4:56-67; Weaver Dec., ¶ 57. The asserted claims are directed to a specific application of signal processing that requires demodulating or demultiplexing, and then outputting a portion of a television program received in a plurality of “discrete signals” encoded in “variable formats,” such as “varying locations,” “varying timing lengths,” or “varying encryption themes.” Further, the preambles of the asserted claims limit the performance of the processing to a particular structure, *i.e.*, a defined “receiver station,” having

“a television receiver, a tuner, a tuner controller, a detector, a processor or computer, and a television monitor, said tuner controller receiving instructions from said processor or computer to control said tuner to frequency select television signals, said detector for detecting digital signals.” This physical structure—with its defined substructures—is sufficiently concrete to overcome a claim of abstractness. *See, e.g., Advanced Mktg.*, No. 6:15-cv-134, ECF No. 77.

Nonetheless, Samsung contends that the signal processing method being claimed, along with its limitations such as “programming, “receiving, “inputting, and “outputting” to support the conversion, is too “abstract” and “standard” for the asserted claims to pass § 101 muster. Mot. at 16-17. But Samsung fails to account for how the claims recite a *specific way* of processing signals in variable formats that involves the steps of “programming, “receiving, “inputting, and “outputting.” For example, in claim 9, the claimed method specifies that the “receiver station” (a) is “programm[ed]” with “multiple signal processing schemes to process television programming signals encoded in variable formats,” (b) is “enabled” by “inputting logic” “to receive and identify said variable formats in accordance with” “instruct signals,” which then (c) “receiv[es] a plurality of discrete signals according to . . . variable formats,” (d) “process[es] said plurality of discrete signals according to . . . signal processing schemes implemented by said one or more instruct signals to identify said particular format of said variable formats,” (e) “demodulate[s] or demultiplex[es]” “a portion of television programming” encoded in signals of variable formats, and then (f) “output[s] said . . . portion of television programming.” Taken together, these steps in the asserted claims are not “standard processing steps”—they provide a specific way for enabling a “receiver station” to match a “signal processing scheme” to the format of a received signal and then output television programming. This specific signal processing method applied to the world of television programming was a breakthrough in the early 1980s. Weaver Dec., ¶¶ 57-58, 61, 64.

**Alice Step 2.** In keeping with its strategy of cherry-picking words or phrases from claim limitations, calling each word or phrase “conventional” and “well known,” and then concluding that the sum of these limitations fail to add anything “inventive” to the claim, Samsung does the same thing for the 6’649 Patent with cherry-picked terms “programming,” “receiving,” “inputting,” and “outputting.” Mot. at 18. This is an improper *Alice* Step Two analysis. *Diehr*, 450 U.S. at 188 (“It is inappropriate to dissect the claims into old and new elements and then to ignore the presence of the old elements in the analysis” because “claims must be considered as a whole.”); 188-89 (“The ‘novelty’ of any element of steps in a process . . . is of no relevance in determining whether the subject matter of a claim falls [within] § 101 categories[.]”). Similarly, Samsung is quick to call each of the disclosed “programmable receiver station,” “tuner,” “tuner controller,” “detector,” “processor,” “computer,” and “television monitor” either “conventional,” “well known in the art,” or “standard.” Mot. at 18-19. Such components may be standard in isolation, but taken together they are not, and especially not when the first step of the claim requires “programming” a component device. As a combination, the disclosed structural limitations amount to a special-purpose computer used for signal processing as it relates to variable television programming signals. *See, e.g., In re Alappat*, 33 F.3d 1526, 1545 (Fed. Cir. 1994) (en banc) (programming a computer to carry out a claimed invention “creates a new machine, because a general purpose computer in effect becomes a special computer once it is programmed to perform particular functions”). An invention is not rendered ineligible for patent protection simply because it contains standard components, a general purpose computer, or an abstract idea; *applications* of standard components or an abstract idea to “a new and useful end” are patent-eligible. *Diehr*, 450 U.S. at 187-88 (a claim “does not become nonstatutory [under § 101] simply because it uses a mathematical formula, computer program, or digital computer

. . . new combination of steps in a process may be patentable even though all the constituents of the combination were well known and in common use before the combination was made”).

Additionally, even if the claims were directed to an abstract idea, there is no risk of preemption. The asserted claims here include specific and narrow limitations that are not necessary or obvious tools for “converting information from one format to another” *per se*. For example, the asserted claims specify: (a) a specific apparatus (*e.g.*, a receiver station having a television receiver, tuner, tuner controller, detector, processor, and monitor); (b) the type of information to be received (*e.g.*, television programming encoded in variable formats); (c) the variable formats (*e.g.*, at least two of varying locations, varying timing lengths, and/or varying encryption schemes); (d) the use of instruct signals (*e.g.*, the receiver must receive and use instruct signals to enable reception and identification of formatted information); (e) specific processor requirements (*e.g.*, the processor must be programmed to receive and identify variable formats in accordance with the received instruct signals); (f) how the media is to be received (*e.g.*, in a plurality of discrete signals, with each discrete signal including at least some television programming and be identifiable according to its format); (g) how the instruct signals are used (*e.g.*, they facilitate the matching of signal processing schemes to the formatted variable television signals to ensure that the signals are processed properly); and (h) additional processing (*e.g.*, the television programming received must be demodulated or demultiplexed). *Weaver Dec.*, ¶¶ 61-63. *See DDR Holdings*, 773 F.3d at 1259 (“the claims at issue do not attempt to preempt every application of the idea . . . Rather, they recite a specific way to [perform the idea]”).

### **3. The Asserted Claims of the ’775 Patent are Patent-Eligible**

***Alice Step 1.*** Samsung wrongly characterizes what the ’775 Patent covers in an effort to

align its asserted claims to abstract ideas found patent-ineligible in previous decisions.<sup>4</sup> As with the 6'649 Patent, Samsung simplifies the asserted claims of the '775 Patent as being directed to the abstract idea of “converting information from one format to another (i.e., decoding information).” Mot. at 19. And as with the '217 Patent, Samsung has reduced claim 2 to just one step (“decoding information”) in order to call it an “abstract idea.” In so doing, Samsung unfairly leaves out important limitations from claim 2 that establish its eligibility under § 101:

SAMSUNG'S OVERSIMPLIFICATION OF CLAIM 2	MISSING LIMITATIONS FROM CLAIM 2 (NOT BOLDED)
A method of:	<b>A method of</b> processing signals at a receiver station having a decoder, detector, a processor, and a video monitor to deliver at least some of each of a series of video images at the video monitor, said method comprising the steps of: (a) receiving an information transmission containing a code portion; (b) receiving a control signal; (c) <b>decoding</b> the code portion of said <b>information</b> transmission and transferring it to the detector; (d) detecting data in said decoded and transferred code portion and passing said data to said processor; (e) generating said at least some of each of a series of video images by processing said detected and passed data; (f) communicating said at least some of each of a series of video images to said video monitor; and (g) controlling the decoder,
Decoding information	whereby the decoder is capable of decoding and transferring, based the control signal, an expanded and a contracted code portion information transmissions in order to generate and deliver video at said video monitor.

As the chart illustrates, the “abstract idea” manufactured by Samsung is taken from a portion of one step of claim 2 and does not represent the basic character of the claimed subject matter.

In distilling the claim into a concept of two words, Samsung cannot account for the

<sup>4</sup> Samsung again references *Digitech* and the abstract idea of “manipulating existing information to generate additional information” found to be patent-ineligible in *Digitech*. As explained below, Samsung fails to shoehorn claim 2 into patent-ineligible space because *Digitech*, *Benson*, and *Flook* involve claims directed to well-known mathematical equations—a different type of “abstract idea” than the proposed “idea of itself” at issue in this Motion.

alternate explanation that claim 2 is directed to a method of handling information transmissions whose variable-length data must first be decoded before the data can be used to create video images. Weaver Dec., ¶ 68. Indeed, “decoding information” is merely one part of the claimed method. Another important aspect of the claimed invention—that the “decoder” is controlled by a “control signal,” *i.e.*, the “decoder . . . decod[es] and transfer[s] . . . a code portion” “based on the control signal”—was inexplicably left out from Samsung’s analysis. *Id.*, ¶ 69. Thus, claim 2 is not directed to an abstract idea, and is not drawn to the concept of “decoding information” in an abstract way. Rather, the claim is directed to a specific set of operations (“receiving a control signal,” “decoding” and “transferring” the “code portion” of an “information transmission” “based on the control signal,” and “generat[ing] and deliver[ing] video”) and which are confined to a particular context (signal processing at a receiver station with specific structures). *See Genband US LLC v. Metaswitch Networks Corp.*, No. 2:14-cv-33-JRG-RSP (E.D. Tex. Jan. 6, 2016), ECF No. 408, at 14.

Far from attempting to usurp the idea of “decoding information” from the public, the ’775 Patent sought to address the specific technological challenge of receiving and processing information transmissions with differently-sized portions of data to generate and output video in the 1980s. ’775 Patent, 26:47-27:3; Weaver Dec., ¶¶ 67, 76. Technological solutions to problems rooted in a specific technology can be patent-eligible. *DDR Holdings*, 773 F.3d at 1257.<sup>5</sup>

Samsung also ignores the physical structures (such as “a receiver station” with subcomponents “decoder,” “detector,” “processor,” and “video monitor”) disclosed in the preambles and the claims, which structures counsel away from a conclusion that the claims are

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<sup>5</sup> In fact, as recently as 2015—almost 30 years after the ’775 Patent’s 1987 priority date—Samsung was *still* seeking to patent methods relating to variable length digital video transmission. *See, e.g.*, Ex. B (U.S. Patent No. 9,100,671 to Samsung Electronics Co., Ltd., entitled “Apparatus and Method for Supporting Variable Length of Transport Packet in Video and Audio Communication System”) (issued Aug. 4, 2015).

inherently abstract. *See Advanced Mktg.*, No. 6:15-cv-134, ECF. No. 77.

Finally, Samsung alleges that independent claims 11 and 23 are “even broader than representative claim 2” but does not state why or how. Mot. at 20. Nor does Samsung explain how claims 11, 23, and their dependent claims—none of which discloses a “decoder” or an equivalent structure—cover the abstract idea of “converting” or “decoding information.” *See id.*

**Alice Step 2.** Samsung’s argument for lack of an inventive concept is again built on highlighting specific words or phrases from a claim and then stating that each is “vanilla,” “well known,” and “conventional” and therefore fails to be transformative. Mot. at 21. Considered in their entirety, the non-trivial limitations of claim 2 do more than tell a generic computer to “decode information.” Instead, they specify that the information to be received must include code and a control signal; require the received code is data used to generate video images; identify a processing sequence such that code is decoded, passed to a detector, and then passed to a processor; and so on. *Weaver Dec.*, ¶¶ 73-74. Taken together, the additional limitations of claim 2 improve a receiver station’s functionality by applying concepts unique to signal processing (specifying the aforementioned processing sequence) to solve a problem unique to signal processing (controlling the processing of variable code to generate video). *Cal. Inst. of Tech. v. Hughes Commc’ns., Inc.*, 2014 U.S. Dist. LEXIS 156763, \*62 (C.D. Cal. Nov. 3, 2014) (holding the claims patent-eligible because they “improved a computer’s functionality by applying concepts unique to computing (like using a linear transform operation to encode data) to solve a problem unique to computing (data corruption due to noise)”).

Although Samsung again neglects to conduct a preemption analysis, the asserted claims do not run a risk of preempting multiple applications. They are sufficiently narrow and specific to delimit the context of “decoding information”—they will not be directed to applications

where, *e.g.*, internal information is being decoded; the information being decoded is not video signals; the information being decoded does not involve expanded or contracted code; or the decoded information is not output to a display. Weaver Dec. ¶ 75.

#### **4. The Asserted Claims of the 2’649 Patent are Patent-Eligible**

**Alice Step 1.** Samsung argues that the asserted claims of the 2’649 Patent are “directed to the [abstract] idea of communicating information to determine which television program to display.” Mot. at 22. Samsung is again mistaken as to the nature of the claims. There is no element within claim 1 that specifically relates to “communicating information to determine which television program to display.” Claim 1 is a method claim specifically tied to a “receiver station”—not a “transmitter station”—and consequently does not disclose a step of “communicating information.”

To the extent Samsung is attempting to argue that the abstract idea is “*using* information to determine which television program to play,” that would be a misunderstanding of the nature of the invention. The asserted claims are directed to applied methods for the reception of digital television programming and control information so the processing of content at receiver stations can be controlled. 2’649 Patent, 8:35-39; 8:47-51; 144:31-160:54; Weaver Dec., ¶ 79. Specifically, a “message stream” which controls the processing, timing, and output of the digital television content to users is received. *Id.*, ¶¶ 79, 81. The claims are directed to problems specific to the distribution of streaming digital television programming and other digital content over computer networks. *Id.*, ¶ 95.

Samsung’s analogy using a “human television viewer” to demonstrate the abstractness of the claim fails. The nature of the invention is manifestly different from “a human television viewer choosing a particular channel of interest,” Mot. at 22, because the human viewer is

incapable of performing any of the specific steps involving the reception, selection, processing, controlling, or storage of the “digital television signals” and “message streams” that are performed by a special-purpose “receiver station.” Also, the invention is directed at a specific process of how selection, processing, timing, and tracking of received information is managed *prior to* their display. Weaver Dec., ¶ 81. Human viewers simply play no role with respect to the digital signals that are processed at a receiver station prior to the time a channel is selected. If Samsung’s analogy were accepted, virtually every patent in the digital television space would be invalid.

As Samsung’s “human viewer” analogy demonstrates, the subject matter of the asserted claims is not fairly represented by the language Samsung excerpted from claim 1, nor does Samsung explain how claim 1 is representative of the 44 asserted claims. Mot. at 22-23; *see* Weaver Dec., ¶¶ 80-93. The claims recite specific and concrete steps for processing incoming digital information transmissions at receiver stations that include digital televisions signals, message streams, and control information used to direct messages for processing, control the timing of that processing, and track available programming.<sup>6</sup> *Id.*, ¶¶ 80-99. The claimed concepts are not abstract.

**Alice Step 2.** Even if the 2’649 Patent claims are directed to an abstract idea (which they are not), they include inventive concepts that go beyond merely “communicating information to decide which television program to display.” The asserted claims are directed to specific ways of controlling how the apparatus at a receiver station processes digital television content received from a transmitter station over a communications network using control information included in the transmission. *Id.*, ¶¶ 95, 101. Contrary to Samsung’s unsupported assertions, it was not conventional or routine practice in 1987 to manage the reception of digital television signals

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<sup>6</sup> At a minimum, construction of the terms identified in the parties’ Joint Letter at Dkt. No. 31-1 is required to ascertain the basic character of the claims for a proper § 101 analysis.

through the use of embedded control information. *Id.*, ¶¶ 26-32, 35. Compared to the conventional receiver stations at the time, which could only passively receive broadcast content, the inventions of the 2’649 Patent offered significant technical advantages because they enabled the operations of receivers to be regulated remotely using “control information” transmitted along with digital media content. This allowed for flexibility in receiver content consumption which was one of the technological challenges associated with the streaming of digital media content on demand to individual receivers. *Id.*, ¶¶ 95-97, 102.<sup>7</sup> The asserted claims are thus not patent ineligible. *DDR Holdings*, 773 F.3d at 1257; *Motio, Inc. v. BSP Software LLC*, No. 4:12-cv-647 (E.D. Tex. Jan. 4, 2016), ECF No. 228, at 9 (denying motion because, inter alia, “the invention does not simply use a computer to automate [what] was done previously, but rather improves upon what was previously done with computers, solving a specific problem” and “the claims describe a particular method of providing one type of version control that does not preempt every application of the idea of maintaining versions of electronic documents”);

## **5. The Asserted Claims of the ’650 Patent are Patent-Eligible**

**Alice Step 1.** As with the 2’649 Patent, the asserted claims of this patent are directed at a receiver station that receives and processes signals—not a transmitter station that communicates or transmits them. Consequently, Samsung’s proposed abstract idea of “communicating information to determine which television program to display” does not apply, and the Court should seize the opportunity to deny Samsung’s motion as premature so that Samsung may better ascertain the character of PMC’s inventions over the course of discovery and claim construction.

To the extent Samsung is attempting to argue that the abstract idea is “*using* information to

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<sup>7</sup> Indeed, streaming digital media was not adopted until well after 1987 because of various technological challenges. *Weaver Dec.*, ¶¶ 31-35. For example, the MPEG-2 standard, which laid the foundation for digital television streaming, was not adopted until the mid-1990s. *Id.*, ¶ 34.

determine which television program to play,” this reflects a misunderstanding of the nature of the invention. The asserted claims are directed to applied methods for receiving “digital television signals” or “digital video signals” along with a “message stream” that enables the control of a digital switch to transfer the digital television signals for processing and subsequent output to a monitor. ’650 Patent, 152:54-59; 154:50-62; Weaver Dec., ¶¶ 105-106. Because the meaning of “digital switch,” which appears in each of the 8 asserted claims, is in dispute,<sup>8</sup> at a minimum, the Court should construe it before rendering a decision on this motion. *See* Mot. at 27.

Samsung also underplays the differences between claim 18 of this patent and claim 1 of the 2’649 Patent. *See* Mot. at 25-27. Not only is the addition of a “digital switch” a significant difference, the addition of “digital video signals,” the inclusion of a “command” in a message stream, and the requirements that (a) at least one of the processors be programmed to control the digital switch, (b) the command be inputted to the processor that controls the digital switch, (c) signals are selected in response to the command, and (d) the digital switch be used to send the selected digital signals to a second processor are additional differences—none of which Samsung addresses—each potentially affects the eligibility analysis. *See id.* at 26. As with claim 1 of the 2’649 Patent, Samsung’s *Alice* Step One analysis with respect to claim 18 is entirely lacking. Samsung merely concludes that the steps of “receiving” “detecting,” “inputting,” and “processing” are “generic data manipulation functions” without support or analysis. *Id.* at 27. Samsung is required to “consider[] [claims] in their entirety to ascertain whether their character as a whole is directed to excluded subject matter.” *Internet Patents*, 790 F.3d at 1346.<sup>9</sup>

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<sup>8</sup> Samsung contends that “digital switch” is a “generic computer component that functions by inputting digital signals and routing them to various outputs.” Mot. at 27. PMC proposes its meaning to be “a special purpose device that directs incoming digital signals to the appropriate apparatus, based on input from a control processor.” ’650 Patent, 152:54-59; 154:50-62.

<sup>9</sup> Nor does Samsung, yet again, provide any analysis for why any of the 7 other asserted claims are “extensions” or “variations” on the abstract idea of “communicating information to determine which

**Alice Step 2.** Samsung contends that with the exception of the addition of a “digital switch,” which it suggests is a “generic computer component” without any transformative qualities, claim 18 is identical in all respects to claim 1 of the 2’649 Patent, including that it lacks any additional limitations to be rendered patent-eligible on *Alice* Step Two. The extent of Samsung’s *Alice* Step Two analysis for claim 18 was thus commensurate with that of its Step Two analysis as to claim 1 of the 2’649 Patent, and is deficient for the same reasons. *See also* Weaver Dec., ¶¶ 109-114.

## 6. The Asserted Claims of the ’885 Patent are Patent-Eligible

**Alice Step 1.** Samsung contends that the 18 asserted claims of the ’885 Patent “cover the abstract idea of regulating the flow of information.” Mot. at 28. Samsung asserts that the first half of representative claim 1 is directed to the “general idea of receiving and demodulating an information transmission as well as the use of generic control logic to regulate the forwarding of the demodulated information to a processor.” *Id.* The second half of claim 1, Samsung contends, is directed to the “abstract idea of regulating the flow of the demodulated information by using a ‘valve’.” *Id.* at 29. Samsung’s oversimplifications continue as it excerpts mere phrases from two limitations in claim 1.

SAMSUNG’S OVERSIMPLIFICATION OF CLAIM 1	MISSING LIMITATIONS FROM CLAIM 1 (NOT BOLDED)
	A method of controlling the communication of signals at a receiver station, said receiver station comprising (i) a valve for receiving and controlling the communication of signals and (ii) at least one processor that processes said signals, said method comprising the steps of:
	receiving one of a broadcast transmission and a cablecast transmission that includes an information transmission that includes embedded signals;

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television program to display.” *Id.* at 27. And Samsung’s analogy using a human “television viewer” to demonstrate the abstractness of the claim fails for the same reasons discussed in the section pertaining to the 2’649 Patent.

SAMSUNG'S OVERSIMPLIFICATION OF CLAIM 1	MISSING LIMITATIONS FROM CLAIM 1 (NOT BOLDED)
Demodulating	<b>demodulating</b> said one of a broadcast transmission and a cablecast transmission to detect said information transmission therein;
	detecting said embedded signals in said information transmission;
	communicating said embedded signals to said valve;
	detecting, at said valve, valve control signals that are embedded in said embedded signals; and
Regulating the flow of the demodulated information by using a “valve”	<b>controlling said valve</b> , in response to said valve control signals, so that said valve performs at least one of the functions of <b>ceasing to communicate and commencing to communicate said embedded signals</b> to said at least one processor.

As the chart shows, the abstract idea proposed by Samsung is distilled from portions of two limitations from claim 1. Such a characterizations fails to consider the claim as a whole and runs afoul of the requirement that claims be “considered in their entirety to ascertain whether their character as a whole is directed to excluded subject matter.” *Internet Patents*, 790 F.3d at 1346. Taken as a whole, the basic character of claim 1 is directed to using an apparatus to control what information received in a particular transmission gets processed on the basis of control signals embedded in the transmission itself. *Weaver Dec.*, ¶ 116. Samsung’s overgeneralized characterization fails to take into account the specific *manner* in which information regulation is achieved. For example, Samsung ignores the specific and concrete limitations that require the transmission to include embedded signals; the embedded signals to have embedded valve control signals; and the valve to perform functions in response to the valve control signals. *Id.*, ¶¶ 117-18. This level of granularity does not an abstract idea make. *See SimpleAir, Inc. v. Google Inc.*, No. 2:14-cv-11-JRG (E.D. Tex. Sept. 25, 2015), ECF No. 294 (finding Defendants to have failed to meet their burden under *Alice* Step One, having “ignored” the “key features” of the asserted patents, which “are directed toward patent-eligible methods and systems of using a central broadcast server” to package and transmit “data from an online information source to remote computing devices”).

Moreover, “demodulating” a broadcast or cablecast transmission to detect an information transmission therein, followed by detecting embedded signals and valve control signals, indicates a departure from conventional technology in the field of television in 1987. Weaver Dec., ¶ 122. Before digital television, when television programming was analog, there was simply no need, or ability, to control what information detected in a demodulated transmission is processed using control signals. The specific demodulation step disclosed is distinguishable from the manner in which traditional systems extracted data because it includes the extraction of control signals. *Id.*

Samsung’s likening of the disclosed “valve” to a “water flow control valve” is also misplaced. Mot. at 29. The flaw in Samsung’s analogy is that the flow of water (which it likens to signals that are being communicated by the valve) does not itself carry “control signals” that automatically instructs the water faucet to turn on or off. A human must turn the water faucet to regulate the flow of water. Yet, “valve control signals,” which are “embedded” in the signals being communicated, comprise the very element that “control[s] [the] valve . . . [to] perform . . . the functions of ceasing to communicate and commencing to communicate said embedded signals to said at least one processor.” Thus, while claim 1 seeks to address problems associated with information regulation and control in digital signal processing, it is directed to non-abstract solutions through the use of the disclosed “valve” and the “control signals” which control the valve. Weaver Dec., ¶¶ 116-18. *See ContentGuard Holdings, Inc. v. Amazon.com, Inc.*, Nos. 2:13-cv-1112-JRG and 2:14-cv-61-JRG (E.D. Tex. Oct. 15, 2015), ECF No. 982, at 8-9 (rejecting defendants’ “library loans” analogy as unpersuasive and finding claims patent-eligible because though they “address problems associated with creating and enforcing usage rights with content, they are directed to non-abstract solutions through the use of trust systems”).

Contrary to Samsung’s contention that the “valve” is a “functional description” that does

not “connote any specific structure or property that would make the claim any less abstract,” the specification offers support for the argument that “valve” may be a physical structure. Mot. at 31. Samsung cites the specification for the proposition that the “valve” is a “dedicated capacity” made up of a series of memory locations such as “standard register memory or RAM capacity[.]” ’885 Patent, 35:34-40, 49-56. But the same passage also states that “[i]n the present invention, any microprocessor, buffer/comparator, or buffer can be adapted and preprogrammed to detect end of file signals.” *Id.* at 35:34-36. This is support that a valve may be more than just a series of memory locations, but a structure such as a microprocessor or buffer/comparator. Weaver Dec., ¶ 119. Furthermore, the specification states: “Then automatically said valve determines the value of said information at said EOFs WORD Flag . . . and executes one of two sets of word evaluation sequence instructions[,] [which] is executed whenever the information at said EOFs WORD Flag indicates that said given signal word is an EOFs WORD. Determining a value of “0” at said EOFs WORD Flag causes said valve to execute said set.” ’885 Patent, 36:36-45. The valve’s ability to execute instructions also indicates that the valve is not simple memory, but that it has structure that can include a microprocessor. Weaver Dec., ¶ 119. Unlike in *Digitech*, where a “process of gathering and combining data that *does not require input from a physical device*” was found to be patent-ineligible, here, the valve—which may be a physical device depending on claim construction—would counsel against a finding of abstractness leading to patent-ineligibility. *See Digitech*, 758 F.3d at 1350-51 (emphasis added).<sup>10</sup>

**Alice Step 2.** Claim construction of at least “valve” and “valve control signals” is

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<sup>10</sup> Because “valve,” a key term which could affect the eligibility determination of the affected claims is in dispute, the Court should decline to rule on this motion prior to engaging in claim construction. *See Loyalty Conversion Sys. Corp. v. Am. Airlines, Inc.*, 66 F. Supp. 3d 829, 835 (E.D. Tex. 2014) (Bryson, J., sitting by designation) (“Accordingly, the Court has waited until after the claim construction hearing in this case to rule on the present motion in order to ensure that there are no issues of claim construction that would affect the Court’s legal analysis of the patentability issue.”).

likewise necessary to decide the second step of the *Alice* test. However, if the Court wishes to rule on the merits, then it is clear that claim 1 amounts to significantly more than the alleged abstract idea of “regulating the flow of information” upon a consideration of the limitations of claim 1 as an ordered combination. The limitations specify: (a) that the invention is tied to a specific apparatus (*e.g.*, a receiver station having a processor and a valve, and is capable of demodulating transmission and detecting signals); (b) the usage of the valve (*e.g.*, for receiving and controlling the communication of signals to the processor); (c) the type of information being received (*e.g.*, a broadcast or cablecast transmission that includes an information transmission having embedded signals); (d) how embedded signals must be extracted (*e.g.*, through demodulation of the broadcast/cablecast transmission in order to detect the information transmission, and subsequently detect the embedded signals therein); (e) what embedded signals include (*e.g.*, the embedded signals must include valve control signals that are detected at the valve); and (f) how the valve is controlled (*e.g.*, by valve control signals embedded in the embedded signals which cause the valve to cease or commence communicating the received embedded signals). *Weaver Dec.*, ¶¶ 121-25. These additional limitations and structural disclosures are sufficient to ensure that the asserted claims “amount to significantly more than a patent simply on th[e] abstract idea” of information regulation. *ContentGuard*, Nos. 2:13-cv-1112-JRG and 2:14-cv-61-JRG, ECF No. 982, at 10 (finding the “three integrities required to implement a trusted repository” disclosed in the claim’s additional limitations to be sufficient to “transform” the “abstract idea of enforcing usage rights and restrictions on digital content”).

## V. CONCLUSION

For the foregoing reasons, PMC respectfully asks that the Court deny Samsung’s motion with prejudice. In the alternative, the Court should deny Samsung’s motion as premature.

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Respectfully submitted,

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**CERTIFICATE OF SERVICE**

I hereby certify that all counsel of record are being served via electronic mail with a copy of this document on March 11, 2016.

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